NMDC
NORWEGIAN MARINE DATA CENTRE

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NATIONAL RESEARCH INFRASTRUCTURE

An integrated infrastructure NMDC addressing interoperability, data documentation, archiving, providing data access was established in 2012 with a 10-year prospect. The establishing of NMDC is funded by the Norwegian Research Council with goals that simplifies the technical obstacles scientists encounter when finding and using data from various sources. In addition, the infrastructure provides a cost-effective interface for data providers. NMDC is ensuring proper stewardship for data, both in the short and long term, uncovering the potential hidden in historical data sets by documenting and storing them in a long-term archive.
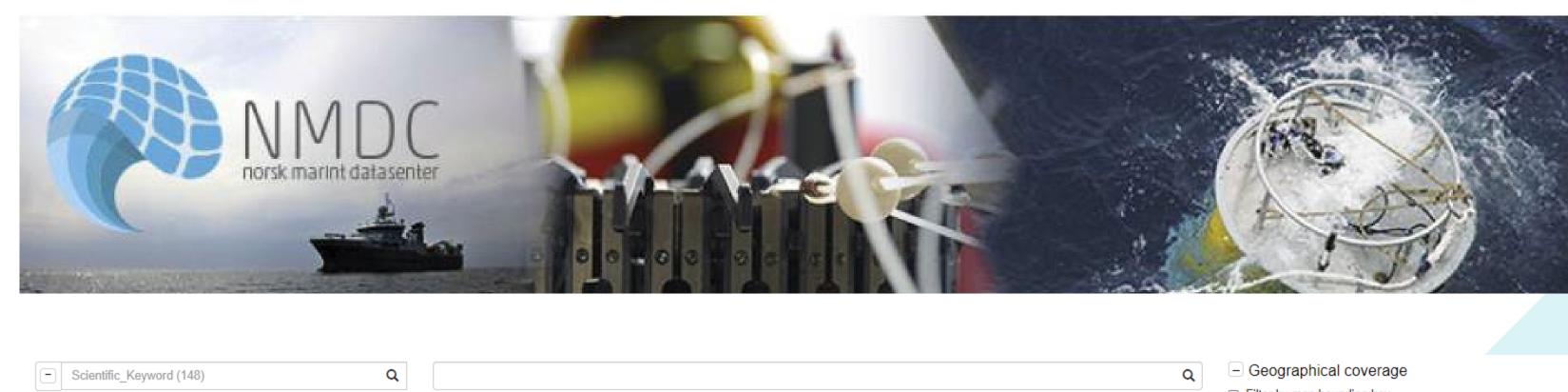
METADATA PORTAL

NMDC offers a search facility on the webpage www.nmdc.no being able to filter on geographical area, time, science keywords, data providers or free text. The result list is presented with the title and access to detailed information about each dataset. Requesting details about one specific dataset will activate the landing page of the dataset. The landing page is a formatted web page with the metadata of the dataset and necessary download information to get the data itself.
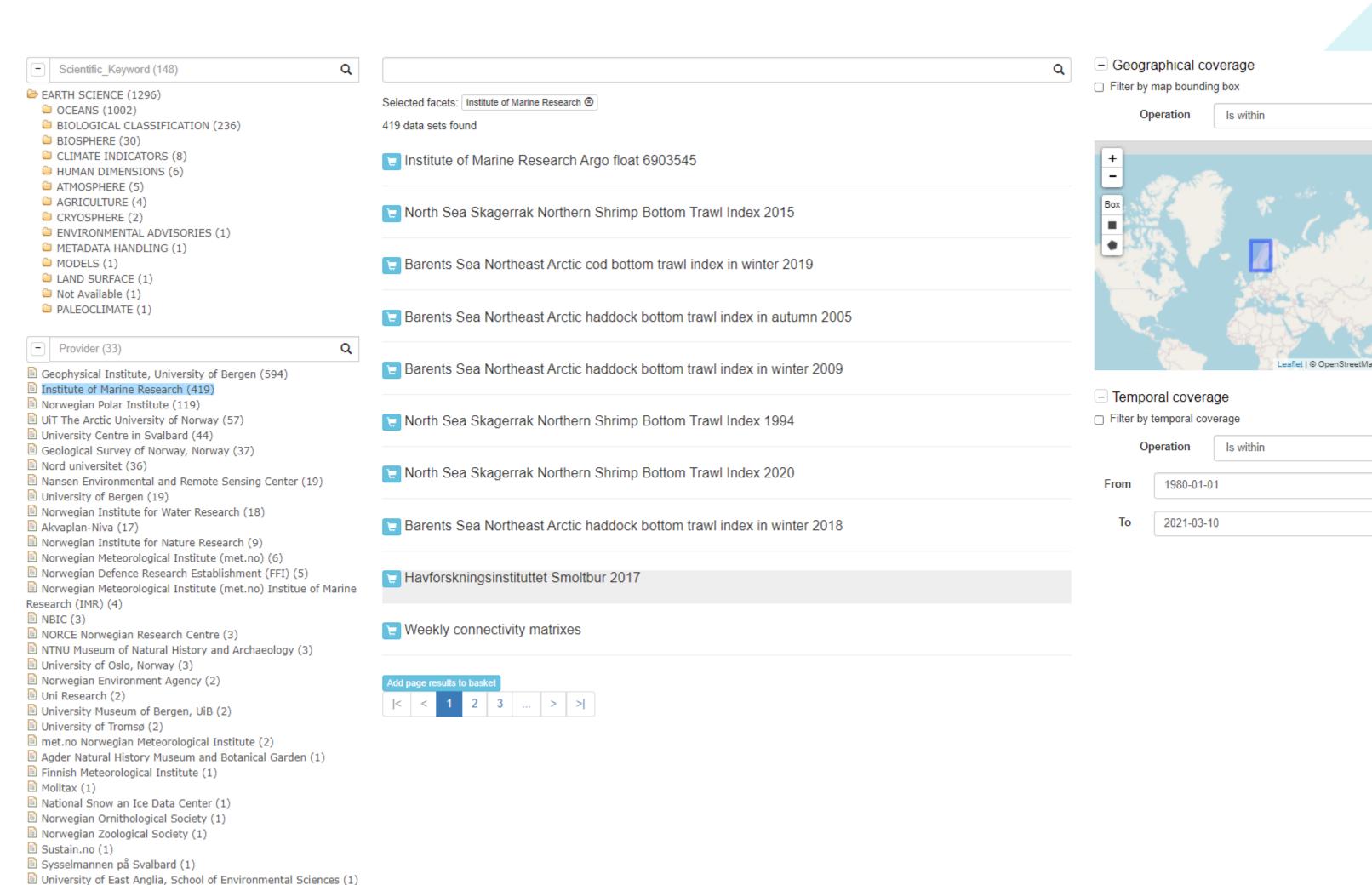
TRUSTWORTHY DATA REPOSITORY

NMDC is coordinated by IMR which is the Norwegian NODC named NMD Norsk Marint Datasenter holding the certificate as trusted data repository certified by Core Trust Seal. CoreTrustSeal offers to any interested data repository a core level certification based on the DSA–WDS Core Trustworthy Data Repositories Requirements catalogue and procedures. This universal catalogue of requirements reflects the core characteristics of trustworthy data repositories and is the culmination of a cooperative effort between DSA and WDS under the umbrella of the Research Data Alliance to merge their data repositories certifications.
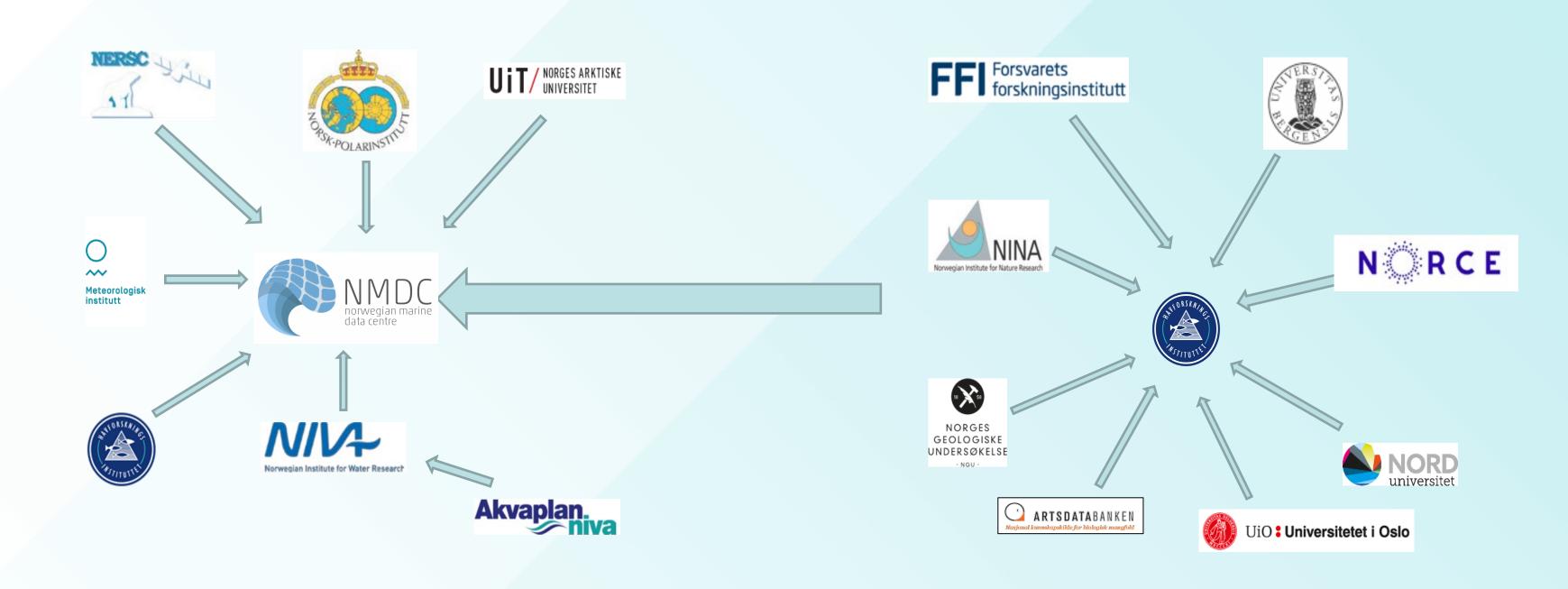
DISTRIBUTED SYSTEM

NMDC research infrastructure is implemented with a central node that harvest 6 local nodes providing metadata and data URLs. The 6 local nodes offer their internal users the possibility to publish their datasets to the scientific community. Through this setup NMDC offers the users a "one-stop shop" for searching metadata to get access to the data connected to the metadata. The research community has expressed the need for such centralised services to make it easier for them finding datasets. Without a central service in NMDC the users are left with many local sources to find the data and these services are probably not implemented in similar way.

PARTNERS

NMDC is a joint effort of Norwegian institutions and universities, coordinated by the Institute of Marine Research, to build a national research infrastructure for seamless access to documented research data. The 16 partners have successfully worked together in making this possible and all partners have made their data go through a standardization process before being released in the infrastructure. The work has identified a long list of possible data that could be made available using the infrastructure. The infrastructure consists of distributed data nodes that provide a central node with metadata, which is used for discovery of relevant data sets. The information about all the data sets available within NMDC is accessible through a web portal, where researchers or other end users can search for relevant data.